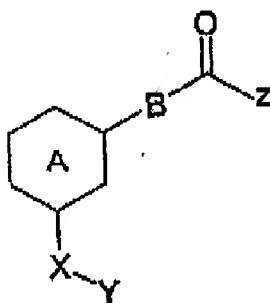


AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A compound of formula I, or a pharmaceutically
~~pharmaceutically~~ acceptable salt thereof,



wherein

Z is OR^4 or NR^1R^2 wherein each of R^1 and R^2 is independently H, or a hydrocarbonyl group;

X-Y is selected from

$-\text{C}\equiv\text{C}-(\text{CH}_2)_p-\text{Y}$

$-\text{C}(\text{R}^5)=\text{C}(\text{R}^6)-(\text{CH}_2)_q-\text{Y}$; and

$-\text{C}(\text{R}^5)(\text{R}^6)\text{C}(\text{R}^7)(\text{R}^8)-(\text{CH}_2)_r-\text{Y}$;

wherein each of R^5 , R^6 , R^7 , and R^8 is independently H or alkyl, and each of p, q and r is independently 2, 3, or 4

~~X is an alkylene, alkenylene, or alkynylene group, each of which may be optionally substituted by one or more substituents selected from alkyl, COOH , CO_2 -alkyl, akenyl, CN , NH_2 , hydroxy, halo, alkoxy, CF_3 , and nitro;~~

Y is a polar functional group selected from OH , NO_2 , CN , COR^3 , COOR^3 , NR^3R^4 ,

CONR^3R^4 , SO_3H , $\text{SO}_2\text{-R}^3\text{SO}_2\text{-R}^3$, $\text{SO}_2\text{NR}^3\text{R}^4$ and CF_3 , where each of R^3 and R^4 is independently H or a hydrocarbyl group;

A is phenyl-~~or pyridyl~~; and

B is $(\text{CH}_2)_n$ where n is 0;

with the proviso that:

(i) when A is phenyl, and Z is OH, X-Y is other than $\text{C}\equiv\text{C}-(\text{CH}_2)_2\text{OH}$, $\text{C}\equiv\text{C}--(\text{CH}_2)_2\text{OH}$, $\text{C}\equiv\text{C}-(\text{CH}_2)_2\text{CO}_2\text{Me}$, $(\text{CH}_2)_4\text{CO}_2\text{H}$; and

(ii) when A is phenyl, and Z is OMe, X-Y is other than $\text{C}\equiv\text{C}-(\text{CH}_2)_4\text{OH}$; $-(\text{CH}_2)_4\text{-CHO}$, *cis*- $\text{CH}=\text{CH}-(\text{CH}_2)_3\text{OH}$, *trans*- $\text{CH}=\text{CH}-(\text{CH}_2)_3\text{OH}$;

and wherein the compound is other ~~than than~~ 1-(N-octylcarbamoyl)methyl-3-carboxmidopyridinium chloride, 3 -methylcarbamoyl-1-dodecyloxycarbonylmethyl-pyridinium or 6-aminomethylpyridine-2-carboxylic acid ethyl ester.

2. (Currently Amended) A compound according to claim 1 wherein Y is selected from $[[\text{ON}]]\underline{\text{CN}}$, OH, COOR^3 , $\text{SO}_2\text{NR}^3\text{R}^4$, CONR^3R^4 , where each of R^3 and R^4 is independently H or a hydrocarbyl group.

3. (Previously Presented) A compound according to claim 1 wherein each of R^1 , R^2 , R^3 and R^4 is independently H, an alkyl group, an aryl group, or a cycloalkyl group, each of which may be optionally substituted.

4. (Previously Presented) A compound according to claim 1 wherein Y is selected from OH, CN, COOR^3 , CONR^3R^4 , where each of R^3 and R^4 is independently H or an optionally substituted alkyl group.

5. (Previously Presented) A compound according to claim 1 wherein Y is selected from OH, CN, COOMe, COOH, CONH₂, CONHMe and CONMe₂.

Claim 6. (Canceled)

7. (Previously Presented) A compound according to claim 1 wherein X-Y is selected from

-C≡C-(CH₂)_p-Y; and

-CH=CH-(CH₂)_q-Y;

wherein each of p and q is independently 2, 3 or 4.

8. (Currently Amended) A compound according to claim [[6]]1 wherein X-Y is *cis*-C(R⁵)=C(R⁶)-(CH₂)_q-Y and q is 2, 3 or 4.

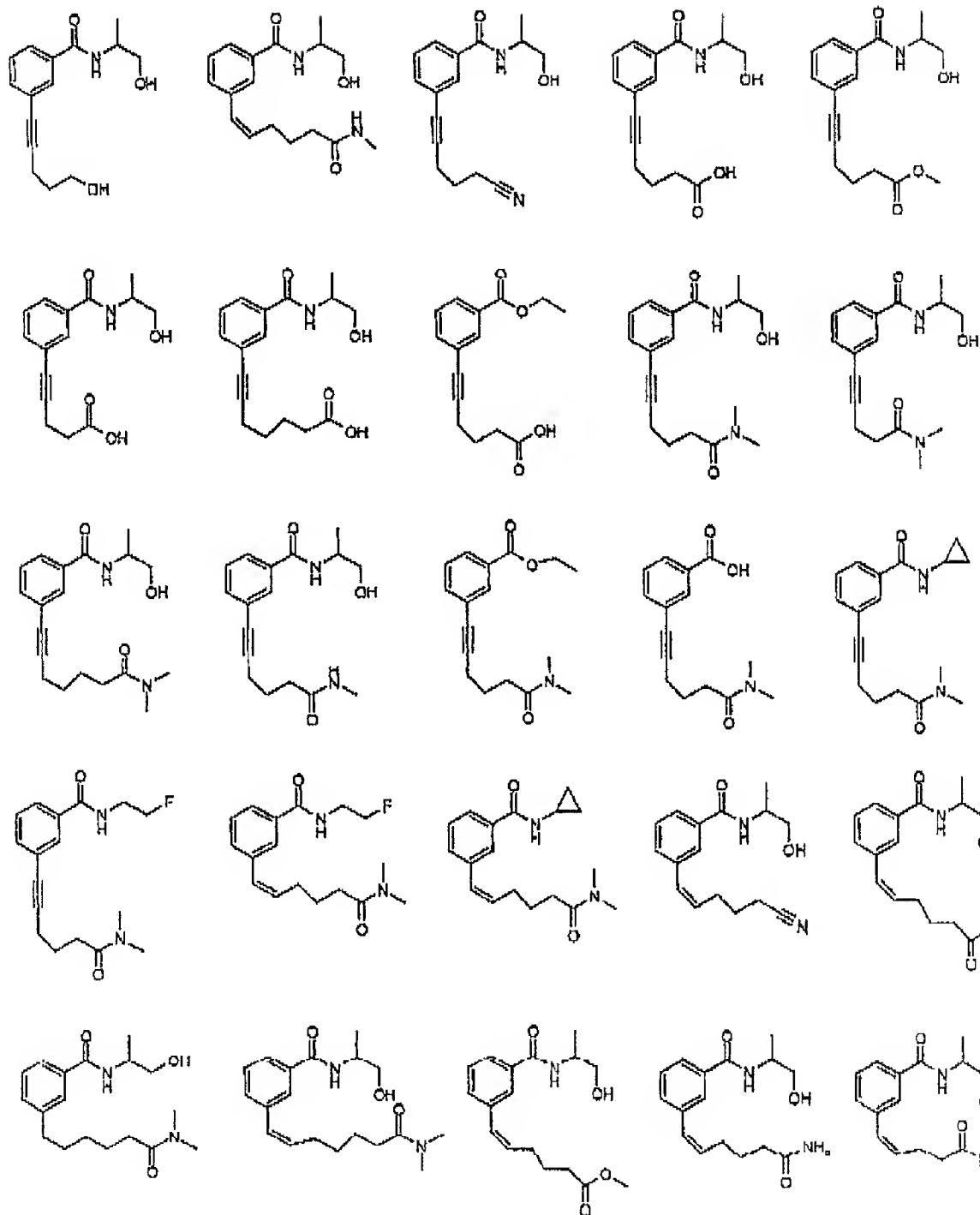
9. (Previously Presented) A compound according to claim 1 wherein X-Y is -C(Me)₂-CH₂-(CH₂)_r-Y and r is 2, 3 or 4.

10. (Original) A compound according to claim 1 wherein A is phenyl.

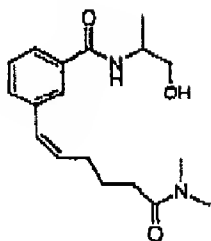
11. (Previously Presented) A compound according to claim 1 wherein Z is OR¹ or NR¹R₂ and each of R¹ and R² is independently H, an alkyl or a cycloalkyl group, each of which may be optionally substituted by one or more OH or halogen groups.

12. (Previously Presented) A compound according to claim 1 wherein Z is selected from OH, OEt, NHCH₂CH₂F, NH-cyclopropyl, NHCH(Me)CH₂OH and NHCH₂CH₂OH

13. (Previously Presented) A compound according to claim 1 which is selected from the following:

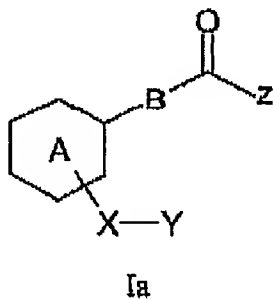


14. (Original) The compound of claim 13 which is



15. (Original) The compound of claim 14 which is in the form of a racemic mixture.

16. (Currently Amended) A method of treating a muscular disorder in a subject in need thereof, said method comprising administering to the subject ~~Use of a~~ a compound of formula Ia, or a pharmaceutically acceptable salt thereof,



wherein

Z is OR¹ or NR₁R₂ wherein each of R₁ and R₂ is independently H, or a hydrocarbyl group;

X is an alkylene, alkenylene, or alkynylene group, each of which may be optionally substituted;

Y is a polar functional group;

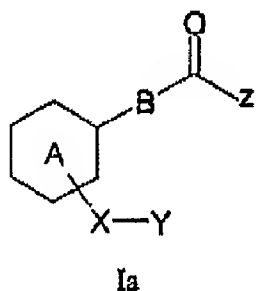
A is an aryl or heteroaryl group, each of which may be optionally substituted; and

B is (CH₂)_n where n is 0, 1, 2, 3, 4 or 5;

~~in the preparation of a medicament for treating a muscular disorder.~~

17. (Currently Amended) A method [[Use]] according to claim 16 wherein the muscular disorder is a neuromuscular disorder.

18. (Withdrawn – Currently Amended) A method of treating spasticity and tremors in a subject in need thereof, said method comprising administering to the subject ~~Use~~ of a compound of formula Ia, or a pharmaceutically acceptable salt thereof,



wherein

Z is OR^1 or NR^1R^2 wherein each of R^1 and R^2 is independently H, or a hydrocarbyl group;

X is an alkylene, alkenylene, or alkynylene group, each of which may be optionally substituted;

Y is a polar functional group;

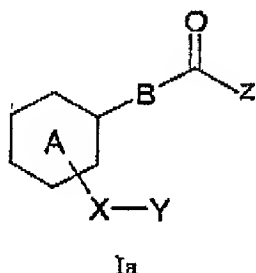
A is an aryl or heteroaryl group, each of which maybe optionally substituted; and

B is $(CH_2)_n$ where n is 0, 1, 2, 3, 4 or 5;

~~in the preparation of a medicament for controlling spasticity and tremors.~~

19. (Withdrawn – Currently Amended) A method of treating a gastrointestinal disorder in a subject in need thereof, said method comprising administering to the

subject ~~Use of~~ a compound of formula Ia, or a pharmaceutically ~~pharmaceutically~~
acceptable salt thereof,



wherein

Z is OR¹ or NR¹R² wherein each of R¹ and R² is independently H, or a.
hydrocarbyl group;

X is an alkylene, alkenylene, or alkynylene group, each of which may be
optionally substituted;

Y is a polar functional group;

A is an aryl or heteroaryl group, each of which may be optionally substituted; and

B is (CH₂)_n where n is 0, 1, 2, 3, 4 or 5;

~~in the preparation of a medicament for treating a gastrointestinal disorder.~~

20. (Withdrawn – Currently Amended) A method ~~[[Use]]~~ according to claim 19
wherein the gastrointestinal disorder is a gastric ulcer.

21. (Withdrawn – Currently Amended) A method ~~[[Use]]~~ according to claim 19
wherein the gastrointestinal disorder is Crohn's disease.

22. (Withdrawn – Currently Amended) A method ~~[[Use]]~~ according to claim 19
wherein the gastrointestinal disorder is secretory diarrhoea.

23. (Withdrawn – Currently Amended) A method ~~[[Use]]~~ according to claim 19 wherein the gastrointestinal disorder is paralytic ileus.

24. (Withdrawn – Currently Amended) A method ~~[[Use]]~~ according to claim 16 wherein said modulator selectively modulates peripheral cannabinoid receptors.

25. (Withdrawn – Currently Amended) A method ~~[[Use]]~~ according to claim 16 wherein said compound selectively modulates peripheral cannabinoid receptors over central cannabinoid receptors.

26. (Withdrawn – Currently Amended) A method ~~[[Use]]~~ according to claim 16 wherein the compound binds substantially exclusively to peripheral cannabinoid receptors.

27. (Withdrawn – Currently Amended) A method ~~[[Use]]~~ according to claim 16 wherein the compound is a cannabinoid receptor agonist.

28. (Withdrawn – Currently Amended) A method ~~[[Use]]~~ according to claim 16 wherein the compound does not substantially agonise central cannabinoid receptors.

29. (Withdrawn – Currently Amended) A method ~~[[Use]]~~ according to claim 16 wherein the compound is substantially excluded from the CNS.

30. (Currently Amended) A method ~~[[Use]]~~ according to claim 16 wherein Y is selected from NO₂, CN, OR³, COR³, COOR³, NR³R⁴, CONR³R⁴, SO₃H, SO₂-R³, SO₂NR³R⁴ and CF₃, where each of R³ and R⁴ ~~NO₂, CN, OR₃, COR₃, COOR₃, NR₃R₄, CONR₃R₄, SO₃H, SO₂-R₃, SO₂NR₃R₄ and CF₃, where each of R₃ and R₄ is~~ independently H or a hydrocarbyl group.

31. (Currently Amended) A method ~~[[Use]]~~ compound according to claim 16 wherein Y is selected from CN, COOR³, SO₂NR³R⁴, CONR³R⁴, where each of R³ and R⁴ is independently H or a hydrocarbyl group.

32. (Currently Amended) A method ~~[[Use]]~~ according to claim 16 wherein the compound is as defined in any one of claims 1-5 and 7-15.

33. (Withdrawn) A method of treating a disorder associated with the modulation of peripheral cannabinoid receptors, said method comprising administering to a subject in need thereof, a therapeutically effective amount of a compound according to claim 1.

34. (Withdrawn) A method according to claim 33 wherein said disorder is associated with peripheral cannabinoid receptor deactivation.

35. (Withdrawn) A method according to claim 33 wherein the compound binds substantially agonise central cannabinoid receptors.

36. (Withdrawn) A method according to claim 33 wherein the compound binds substantially exclusively to peripheral cannabinoid receptors.

37. (Withdrawn) A method according to any claim 33 wherein the compound is substantially excluded from the CNS.

38. (Previously Presented) A pharmaceutical composition comprising a compound according to claim 1, or a pharmaceutically acceptable salt thereof, admixed with pharmaceutically acceptable diluent, excipient or carrier.

39. (Withdrawn – Currently Amended) An assay method of identifying compounds capable of modulating cannabinoid receptor activity, said method comprising using ~~Use of~~ a compound of formula Ia, or pharmaceutically acceptable salt

OKUYAMA et al.
Appl. No. 10/590,064
Atty. Ref.: 550-850
Amendment
Monday, July 13, 2009

thereof, as defined in claim 16 to identify said compounds in an assay for identifying
~~further compounds capable of modulating cannabinoid receptor activity.~~

40. (Withdrawn – Currently Amended) The method ~~[[Use]]~~ according to claim 39
wherein the assay is a competitive binding assay.